

EXHIBIT 7

PART 5 of 5

Appl. No. 11/410,699
Reply dated Nov. 27, 2007
Reply to Final Office Action of Sep. 27, 2007

between a first set of connectors to the set of tester electronics and a second set of connectors to the plurality of devices under test, and a driver to selectively operate each of the plurality of micro-electromechanical switches; and

a probe array to transmit signals between the at least one multichip module of the probe card and the plurality of devices under test.

12. (Withdrawn) A system in accordance with claim 11, wherein each of the at least one multichip modules has a plurality of MEMS dice thereon.

13. (Withdrawn) A system in accordance with claim 11, wherein each one of the plurality of MEMS dice each contain a plurality of micro-electromechanical switches.

14. (Withdrawn) A system in accordance with claim 13, wherein the switches are single pole triple throw switches.

15. (Withdrawn) A system in accordance with claim 13, wherein the switches are single pole double throw switches.

16. (Withdrawn) A system in accordance with claim 11, wherein the probe card has a maximum diameter of 440 millimeters.

17. (Withdrawn) A system in accordance with claim 16, wherein the probe card forms an opening for the probe array, and the opening has a minimum diameter of 330 millimeters.

18. (Withdrawn) A system in accordance with claim 11, wherein the probe array has at least 6000 probe tip needles so as to test at least 6000 test sites of the plurality of devices under test during a single touchdown of the probe array.

19. (Previously Presented) A method of processing signals between a tester and a plurality of devices under test, the method comprising:

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connecting the tester and the plurality of devices under test with at least one multichip module, each of the at least one multichip module having a plurality of micro-electromechanical switches between a first set of connectors to the tester and a second set of connectors to the plurality of devices under test; and

selectively operating each of the plurality of micro-electromechanical switches to process the signals between individual ones of the first set of connectors to the tester and selected multiple ones of the second set of connectors to the plurality of devices under test.

20. (Original) A method in accordance with claim 19, further comprising operating the at least one multichip module at a speed of at least 100 MHz.

21. (Original) A method in accordance with claim 19, further comprising operating the multichip module at a temperature of at least 125° C.

22. (Currently Amended) A method in accordance with claim 19, further comprising mounting each of the at least one multichip module directly on ~~[[the]]~~a probe card.

23. (Currently Amended) A method in accordance with claim 19, further comprising mounting each of the at least one multichip module directly on ~~[[the]]~~a probe card, operating the multichip module at a temperature of at least 125° C, and operating the at least one multichip module at a speed of at least 100 MHz.

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REMARKS/ARGUMENTS

Claims 1-23 remain in this application. Of these, claims 19-23 stand rejected, and claims 1-18 stand withdrawn. Claims 22 and 23 also stand objected to.

1. Objection of Claims 22 and 23

Claims 22 and 23 stand objected to because "the probe card" should be --a probe card--. Appropriate corrections have been made.

2. Rejection of Claims 19 and 22 Under 35 USC 103(a)

Claims 19 and 22 stand rejected under 35 USC 103(a) as being unpatentable over Legal (U.S. Pat. No. 5,736,850) in view of Leggett et al. (U.S. Pat. No. 6,098,142; hereinafter referred to as "Leggett").

With respect to claim 19, the Examiner asserts that Legal discloses connecting a tester and a plurality of devices under test with "at least one multichip module (216). . . (see lines 59-61 in column 4)". See, 9/27/2007 Final Office Action, p. 3, sec. 4. However, nowhere does Legal indicate that the "relay matrix 216" is, or includes, a multichip module. Column 4, lines 59-61, of Legal state:

Relays 312 may be traditional mechanical type relays. Alternatively, they could be solid state switches or other similar structure.

However, there is no mention that the relay matrix 216 is or should be implemented using a multichip module, or that the tester 110 should be connected to devices under test via switches on a multichip module.

The Examiner further states, with respect to claim 19, that:

. . . Legal, teaches that the mechanical switches may also be switches that have control inputs (electrical) or a similar structure (see lines 61-64 in column 4).

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Legal however, does not explicitly state the use of micro electro-mechanical switches. Nevertheless, it has been held that to be entitled weight in method claims, the recited-structure limitations therein (electro-mechanical switch) must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure (in the immediate case, the preferred use of electro-mechanical switches). *Ex parte Pfeiffer*, 1962 C.D. 408 (1961).

9/27/2007 Final Office Action, p. 3., sec. 4.

To begin, applicants note that the switches mentioned in their claim 19 are "micro-electromechanical switches" (MEMS), and the MEMS are provided on a "multichip module". Not only does Legal fail to disclose or suggest the use of MEMS to connect a tester with devices under test, but Legal also fails to disclose or suggest the use of MEMS on at least one multichip module. As mentioned in applicants' specification, MEMS on multichip modules may be switched at faster speeds and used at higher temperatures.

Although the Examiner relies on *Ex parte Pfeiffer*, applicants note that the Board has consistently refused to apply any *per se rule* in addressing 35 USC 103 rejections - even in the context of method claims. At times, the Board has cited to *In re Ochiai*, which holds:

The use of per se rules, while undoubtedly less abhorrent than a searching comparison of the claimed invention - including all its limitations - with the teachings of the prior art, flouts section 103 and the fundamental case law applying it. Per se rules that eliminate the need for fact-specific analysis of claims and prior art may be administratively convenient for PTO Examiners and the Board. Indeed, they have been sanctioned by the Board as well. But reliance on per se rules of obviousness is legally incorrect and must cease. Any such administrative convenience is simply inconsistent with section 103, which, according to *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966)] and its progeny, entitles an applicant to issuance of an otherwise proper patent unless the PTO established that the invention as claimed in the application is obvious over cited prior art, based on the specific comparison of that prior art with claim limitations.

In re Ochiai, 71 F.3d at 1572, 37 USPQ2d at 1133.

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Although the Examiner relies on Leggett's teachings for the proposition that mechanical and electromechanical switches are equivalent, Leggett, like Legal, fails to disclose either MEMS or microchip modules.

Given that neither Legal nor Leggett teach or suggest "connecting [a] tester and [a] plurality of devices under test ***with at least one multichip module, each of the at least one multichip module having a plurality of micro-electromechanical switches***", applicants believe claim 19 to be allowable.

Claim 22 is believed to be allowable because it depends from claim 19, and because Legal and Leggett fail to teach or suggest "mounting each of the at least one multichip module directly on a probe card" (i.e., because neither reference discloses a multichip module or discusses where or how such a module would be used or mounted).

3. Rejection of Claims 20, 21 and 23 Under 35 USC 103(a)

Claims 20, 21 and 23 stand rejected under 35 USC 103(a) as being unpatentable over Legal (U.S. Pat. No. 5,736,850) in view of Leggett et al. (U.S. Pat. No. 6,098,142; hereinafter referred to as "Leggett"), McCord (U.S. Pat. No. 6,681,869) and Akram (U.S. Pat. No. 6,640,323).


Claims 20, 21 and 23 are believed to be allowable, at least, because each of these claims depends from claim 19, and because McCord and Akram fail to disclose that which is missing from the combined teachings of Legal and Leggett. See, e.g., the discussion of Legal and Leggett in Section 2 of these Remarks/Arguments.

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4. Conclusion

In light of the amendments and remarks provided herein, Applicants respectfully request the timely issuance of a Notice of Allowance.

Respectfully submitted,
HOLLAND & HART, LLP

By: 

Gregory W. Osterloth
Reg. No. 36,232
Tel: (303) 295-8205

PTO/SB/06 (07-06)

Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 11/410,699		Filing Date 04/24/2006		<input type="checkbox"/> To be Mailed	
APPLICATION AS FILED – PART I										
(Column 1)			(Column 2)			SMALL ENTITY <input type="checkbox"/> OR		OTHER THAN SMALL ENTITY		
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	OR	RATE (\$)	FEE (\$)			
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A				
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A			N/A				
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A				
TOTAL CLAIMS (37 CFR 1.16(i))	23 minus 20 =	* 3	X \$ =		OR	X \$50 =	150			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	4 minus 3 =	* 1	X \$ =			X \$200 =	200			
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).									
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))										
* If the difference in column 1 is less than zero, enter "0" in column 2.										
			TOTAL			TOTAL	350			
APPLICATION AS AMENDED – PART II										
(Column 1)			(Column 2)			SMALL ENTITY OR		OTHER THAN SMALL ENTITY		
AMENDMENT	11/30/2007	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)	
Total (37 CFR 1.16(i))	* 23	Minus	** 23	= 0	X \$ =		OR	X \$50=	0	
Independent (37 CFR 1.16(h))	* 4	Minus	***4	= 0	X \$ =		OR	X \$210=	0	
<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))										
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0	
(Column 1)			(Column 2)			SMALL ENTITY OR		OTHER THAN SMALL ENTITY		
AMENDMENT	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)		
Total (37 CFR 1.16(i))	*	Minus	**	=	X \$ =		OR	X \$ =		
Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =		OR	X \$ =		
<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))										
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE		
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.										

Legal Instrument Examiner:
/GERALDINE STANLEY/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/410,699	04/24/2006	Romi Mayder	10060220-1	4586
63448	7590	12/27/2007		
VERIGY 4700 INNOVATION WAY, BLDG D1 FORT COLLINS, CO 80528			EXAMINER ISLA RODAS, RICHARD	
			ART UNIT	PAPER NUMBER
			2829	
			MAIL DATE	DELIVERY MODE
			12/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action
Before the Filing of an Appeal Brief

Application No.

11/410,699

Applicant(s)

MAYDER ET AL.

Examiner

Richard Isla-Rodas

Art Unit

2829

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 30 November 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because:
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ They raise the issue of new matter (see NOTE below);
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
 6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
 The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: _____
 Claim(s) objected to: _____
 Claim(s) rejected: 19-23.
 Claim(s) withdrawn from consideration: 1-18.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
 13. ☐ Other: _____

Continuation Sheet (PTO-303)

Application No. 11/410,699

Continuation of 5. Applicant's reply has overcome the following rejection(s): Objection to claims 22 and 23 as stated in page 2 of the Final Rejection.

Continuation of 11. does NOT place the application in condition for allowance because: The amendment to claims 22 and 23 overcome the objections for antecedent basis set up in page 2 of the Final Office Action.

In response to applicant's arguments that Legal does not teach MEMS that may be switched at faster speeds and used at higher temperatures.

- Firstly, applicant does not recite "MEMS". Applicant recites "micro-electromechanical switches". Given the broadest reasonable interpretation of the preferred structure the applicant uses to perform the method claim, the limitation recites a mechanical switch that is actuated electrically and which works on the micrometer scale. That is a small mechanical switch that may be operated/switched/actuated electrically. The prior art anticipates said limitation (see Final rejection pages 2-4)

- Secondly, the applicant does not state where in the specifications said mention that MEMS on multichip modules may be switched at faster speeds and used at higher temperatures is. Still, even if the specifications mentions said ability of the MEMS to switch at faster speeds or higher temperatures (which would also raise the question: higher than what? and faster than what?), applicant misinterprets the principle that claims are interpreted in the light of the specification. Although these virtues (speed or high temperature operability) may be found as examples or embodiments in the specification, they were not claimed explicitly. Nor were the words that are used in the claims defined in the specification, to require these limitations. A reading of the specification provides no evidence to indicate that these limitations must be imported into the claims to give meaning to disputed terms (Constant v. Advanced Micro-Devices Inc., 7 USPQ 2d 1064.).

Likewise, the recitation "multichip module" has been given its broadest reasonable interpretation as a module that is capable of connecting to a plurality of chips. As shown in Figure 3 of Legal, the module 216 indeed is capable of connecting to a plurality of device (310) and therefore is capable of connecting to a plurality of chips. It must be noted that this interpretation of "multichip module" was relied on in the preparation of the Non Final office action submitted 4/3/2007 (see lines 4-6 in paragraph 11 of page 5), which the applicant did not argued against.

In addition, the examiner disagrees with the contention that in the examination process, the examiner has used case law (Ex parte Pfeiffer) as a per se rule in order to make the examination process less laborious (see lines 1-3 in paragraph 3, page 7 of submitted Remarks). The examiner had considered all limitations and after determining that, the claimed preferred devices (micro-electromechanical switches) do not affect the method in a manipulative manner that differs from that which is accomplished by using the elements in the prior art of record (relays) the examiner determined that the sole use of said preferred structure could not distinguish the claimed method from the method disclosed by the prior art. The examiner did not simply dismiss the claims by applying a per se rule but rather used the available case law (Ex parte Pfeiffer) to support his rejection.


HA TRAN NGUYEN
SUPERVISORY PATENT EXAMINER



Reply under 37 CFR 1.116 –
Expedited Procedure –
Technology Center 2800

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 11/410,699
Applicant : Romi Mayder, et al.
Filed : 04/24/2006
TC/A.U. : 2829
Examiner : Isla Rodas, Richard

Docket No. : 10060220-1

Confirmation No. 4586

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY UNDER 37 CFR 1.116 – EXPEDITED PROCEDURE

Sir:

In response to the Final Office Action of September 27, 2007, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 6 of this paper.

*Please enter after Final
Amendment.*

Thank you

R.I. 12/26/07

AK
D

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Romi Mayder, et al.

Serial No.: 11/410,699

Filing Date: April 24, 2006



Examiner: RICHARD ISLA RODAS

Group Art Unit: 2829

Title: APPARATUS, SYSTEMS AND METHODS FOR PROCESSING SIGNALS BETWEEN A TESTER AND A PLURALITY OF DEVICES UNDER TEST AT HIGH TEMPERATURES AND WITH SINGLE TOUCHDOWN OF A PROBE ARRAY

COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria VA 22313-1450

NOTICE OF APPEAL FROM THE EXAMINER TO THE
BOARD OF PATENT APPEALS AND INTERFERENCES

Sir:

Applicant hereby appeals to the Board of Patent Appeals and Interferences from the decision of the examiner dated, September 27, 2007, rejecting the following claims 19-23

The fee for this Notice of Appeal (37 CFR 1.17(b)) is \$510.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☒ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

<input checked="" type="checkbox"/>	one month	\$ 120.00
<input type="checkbox"/>	two months	\$ 460.00
<input type="checkbox"/>	three months	\$1050.00
<input type="checkbox"/>	four months	\$1640.00

02/01/2008 SDENBOB3 00000040 002623 11410699
01 FC:1401 510.00 DA
02 FC:1251 120.00 DA

☐ The extension fee has already been filled in this application.

☐ (b) Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account **08-2623** the sum of \$630.00. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account **08-2623** pursuant to 37 CFR 1.25.

A duplicate copy of this transmittal letter is enclosed.

☒ I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date of Deposit: January 28, 2008 OR

☐ I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

Date of Facsimile:

Typed Name: Gregory W. Osterloth

Signature: _____

Respectfully submitted,
Romi Mayder, et al.

By _____

Gregory W. Osterloth
Attorney/Agent for Applicant(s)

Reg. No. 36,232

Date: January 28, 2008

Telephone No. (303) 295-8205

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Romi Mayder, et al.

Serial No.: 11/410,699

Filing Date: April 24, 2006

Examiner: Richard Isla Rodas

Group Art Unit: 2829



Title: APPARATUS, SYSTEMS AND METHODS FOR PROCESSING SIGNALS BETWEEN A TESTER AND A PLURALITY OF DEVICES UNDER TEST AT HIGH TEMPERATURES AND WITH SINGLE TOUCHDOWN OF A PROBE ARRAY

COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Sir:

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on January 28, 2008 (and received by the Office on February 1, 2008).

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) **\$510.00**.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)(1)-(5)) for the total number of months checked below:

<input type="checkbox"/>	one month	\$ 120.00
<input type="checkbox"/>	two months	\$ 460.00
<input type="checkbox"/>	three months	\$1050.00
<input type="checkbox"/>	four months	\$1640.00

☐ The extension fee has already been filled in this application.

☒ (b) Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account **08-2623** the sum of \$510.00. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account **08-2623** pursuant to 37 CFR 1.25.

☒ I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date of Deposit: May 1, 2008 OR

☐ I hereby certify that this paper is being submitted electronically via EFS-Web to the Patent and Trademark Office on the date shown below.

Date of submission:

Typed Name: Gregory W. Osterloth

Signature: _____

Respectfully submitted,

Romi Mayder, et al.

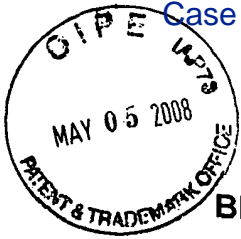
By _____

Gregory W. Osterloth
Attorney/Agent for Applicant(s)

Reg. No. 36,232

Date: May 1, 2008

Telephone No. (303) 295-8205



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appl. No. : 11/410,699 Confirmation No. : 4586
Appellant : Romi Mayder, et al.
Filed : April 24, 2006
TC/A.U. : 2829
Examiner : Richard Isla Rodas

Docket No. : 10060220-1

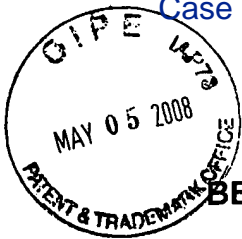
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P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appl. No. : 11/410,699 Confirmation No. : 4586
Appellant : Romi Mayder, et al.
Filed : April 24, 2006
TC/A.U. : 2829
Examiner : Richard Isla Rodas

Docket No. : 10060220-1

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Dear Sir:

This Appeal Brief is submitted in response to the Examiner's Final Office Action dated September 27, 2007.

Appellants filed a Notice of Appeal on January 28, 2008, which was received by the Office on February 1, 2008.

05/05/2008 HNGUYEN1 00000071 002623 11410699
01 FC:1402 510.00 DA

Serial No. 11/410,699
Atty. Dckt. No. 10060220-1

Real Party in Interest

The real party in interest is Verigy (Singapore) Pte. Ltd., a Singapore limited liability company.

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Related Appeals and Interferences

There are no related appeals and/or interferences.

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Status of Claims

Claims 1-23 are pending, of which claims 1-18 stand withdrawn and claims 19-23 stand rejected. The rejections of claims 19-23 are appealed.

A copy of the claims that are the subject of this appeal is attached as a Claims Appendix to this Appeal Brief.

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Status of Amendments

Some minor claim amendments were proposed after issuance of the Final Office Action. All of these amendments have been entered.

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Summary of Claimed Subject Matter

Claim 19 recites a method of processing signals between a tester (p. 10, lines 1-12, par. [0026]; FIG. 4, 126) and a plurality of devices under test. The method comprises 1) connecting the tester and the plurality of devices under test with at least one multichip module (p. 7, lines 3-11, pars. [0014]-[0015]; p. 7, line 20 - p. 8, line 9; pars. [0017]-[0019]; p. 9, lines 4-5, par. [0023]; FIG. 1, 102), with each of the at least one multichip module having a plurality of micro-electromechanical switches (p. 7, lines 12-17, par. [0016]; p. 8, lines 10-15, par. [0020]; FIG. 1, 104) between a first set of connectors (106, FIG. 1) to the tester and a se

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Grounds of Rejection to be Reviewed on Appeal

1. Whether claims 19 and 22 should be rejected under 35 USC 103(a) as being unpatentable over Legal (U.S. Pat. No. 5,736,850) in view of Leggett et al. (U.S. Pat. No. 6,098,142).
2. Whether claims 20, 21 and 23 should be rejected under 35 USC 103(a) as being unpatentable over Legal (U.S. Pat. No. 5,736,850) in view of Leggett et al. (U.S. Pat. No. 6,098,142), McCord (U.S. Pat. No. 6,681,869) and Akram (U.S. Pat. No. 6,640,323).

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Argument

1. Claims 19 and 22 should not be rejected under 35 USC 103(a) as being unpatentable over Legal (U.S. Pat. No. 5,736,850) in view of Leggett et al. (U.S. Pat. No. 6,098,142; hereinafter referred to as “Leggett”).

A. Claim 19:

Appellants’ claim 19 recites, in part, the step of “connecting the tester and the plurality of devices under test with at least one multichip module, each of the at least one multichip module having a plurality of micro-electromechanical switches”.

With respect to claim 19, the Examiner asserts that Legal discloses connecting a tester and a plurality of devices under test with “at least one multichip module (216). . . (see lines 59-61 in column 4)”. See, 9/27/2007 Final Office Action, p. 3, sec. 4. However, contrary to the Examiner’s assertion, Legal does not indicate that the “relay matrix 216” is or comprises a multichip module. Column 4, lines 59-61, of Legal state:

Relays 312 may be traditional mechanical type relays. Alternatively, they could be solid state switches or other similar structure.

In the above excerpt, there is no mention by Legal that the relay matrix 216 is (or should be) implemented using a multichip module. Nor does Legal mention that the tester 110 should be connected to devices under test via micro-electromechanical switches on a multichip module. As disclosed by appellants:

In an embodiment, system 124 enables one touchdown testing of 300 mm wafers containing NAND devices to be tested up to 100 MHz by mounting micro-electromechanical multichip modules 102 very close to the DUTs. ***This one touchdown testing cannot be achieved by using mechanical relays or active silicon devices mounted on daughter boards.*** Daughter board mounted on the

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probe cannot achieve the required density of switches because of the space required for connectors.

Appellants' specification, p. 11, par. [0032] (emphasis added).

For the above reasons, appellants assert that Legal fails to teach "connecting [a] tester and [a] plurality of devices under test with at least one multichip module". Given that Leggett also lacks such a teaching, appellants assert that claim 19 should be allowed over the combined teachings of Legal and Leggett.

The Examiner further states, with respect to claim 19, that:

... Legal, teaches that the mechanical switches may also be switches that have control inputs (electrical) or a similar structure (see lines 61-64 in column 4). Legal however, does not explicitly state the use of micro electro-mechanical switches. Nevertheless, it has been held that to be entitled weight in method claims, the recited-structure limitations therein (electro-mechanical switch) must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure (in the immediate case, the preferred use of electro-mechanical switches). *Ex parte Pfeiffer*, 1962 C.D. 408 (1961).

9/27/2007 Final Office Action, p. 3, sec. 4.

Although the Examiner relies on *Ex parte Pfeiffer*, appellants note that the Board has consistently refused to apply any *per se rule* in addressing 35 USC 103 rejections - even in the context of method claims. On several occasions, the Board has cited to the non-precedential *In re Ochiai*, which holds:

The use of *per se* rules, while undoubtedly less abhorious than a searching comparison of the claimed invention - including all its limitations - with the teachings of the prior art, flouts section 103 and the fundamental case law applying it. *Per se* rules that eliminate the need for fact-specific analysis of claims and prior art may be administratively convenient for PTO Examiners and the Board. Indeed, they have been sanctioned by the Board as well. But reliance on *per se* rules of obviousness is legally incorrect and must cease. Any such administrative convenience is simply inconsistent with section 103, which, according to *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966)] and its progeny, entitles an applicant to issuance of an otherwise proper patent unless the PTO established

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that the invention as claimed in the application is obvious over cited prior art, based on the specific comparison of that prior art with claim limitations.

In re Ochiai, 71 F.3d at 1572, 37 USPQ2d at 1133.

In interpreting the phrases “multichip module” and “micro-electromechanical switch”, the Examiner asserts that:

- Finally, applicant does not recite “MEMS”. Applicant recites “micro-electromechanical switches”. Given the broadest reasonable interpretation of the preferred structure the applicant uses to perform the method claim, the limitation recites a mechanical switch that is actuated electrically and which works on the micrometer scale. That is a small mechanical switch that may be operated/switched/actuated electrically.. . .

Likewise, the recitation “multichip module” has been given its broadest reasonable interpretation as a module that is capable of connecting to a plurality of chips.

See, 12/27/2007 Advisory Action.

Although the Examiner is encouraged to interpret appellants’ claim limitations broadly, appellants believe it inappropriate to construe the phrase “micro-electromechanical switch” any differently than a MEMS, or to construe a “microchip module” any differently than an MCM. These elements have common and well-understood meanings in the art, and appellants’ specification consistently equates the above phrases with their common respective acronyms, without distinguishing the two.

Appellants note that the switches mentioned in their claim 19 are not only “micro-electromechanical switches”, but micro-electromechanical switches provided on a “multichip module”. Not only does Legal fail to disclose the use of micro-electromechanical switches (i.e., MEMS) to connect a tester with devices under test, but Legal also fails to disclose or suggest the use of MEMS that are part of a multichip module (MCM). As mentioned in appellants’ specification, MEMS on MCMs may be switched at faster speeds and used at higher temperatures. See, e.g., the discussion in

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appellants' paragraph [0044] (describing the invention) versus the discussion in appellants' paragraphs [0001] and [0002] (describing past switching methods).

Although the Examiner relies on Leggett's teachings for the proposition that mechanical and electromechanical switches are equivalent, Leggett, like Legal, fails to disclose either MEMS or microchip modules.

With respect to appellants' above discussions of advantages and operating conditions that can be attained using the method set forth in appellants' claim 19, the Examiner's Advisory Action asserts that:

. . . applicant misinterprets the principle that claims are interpreted in light of the specification. Although these virtues (speed or high temperature operability) may be found as examples or embodiments in the specification, they were not claimed explicitly. Nor were the words that are used in the claims defined in the specification, to require these limitations. A reading of the specification provides no evidence to indicate that these limitations must be imported into the claims to give meaning to disputed terms. . .

Appellants disagree with the Examiner's assertion that they are trying to "read into" claim 19 certain limitations and virtues that are not explicitly set forth in claim 19. Rather, appellants merely refer to the specification to illustrate why the differences between what is set forth in claim 19, and the combination of Legal's and Leggett's teachings, are more significant than the Examiner makes them. That is, the method steps, in combination with the structures employed by the method steps, enable appellants' claim 19 to achieve "virtues" that are not achievable by any combination of Legal's and Leggett's methods and apparatus.

In summary, given that neither Legal nor Leggett teach or suggest "connecting [a] tester and [a] plurality of devices under test **with at least one multichip module, each of the at least one multichip module having a plurality of micro-electromechanical switches**", appellants believe claim 19 to be allowable.

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B. Claim 22:

Claim 22 is believed to be allowable because it depends from claim 19, and because Legal and Leggett fail to teach or suggest "mounting each of the at least one multichip module directly on a probe card" (i.e., because neither reference discloses a multichip module or discusses where or how such a module would be used or mounted).

2. Claims 20, 21 and 23 should not be rejected under 35 USC 103(a) as being unpatentable over Legal (U.S. Pat. No. 5,736,850) in view of Leggett et al. (U.S. Pat. No. 6,098,142; hereinafter referred to as "Leggett"), McCord (U.S. Pat. No. 6,681,869) and Akram (U.S. Pat. No. 6,640,323).

Claims 20, 21 and 23 are believed to be allowable, at least, because each of these claims depends from claim 19, and because McCord and Akram fail to disclose that which is missing from the combined teachings of Legal and Leggett. See Section 1 of this Argument for a discussion of what is missing from the combined teachings of Legal and Leggett.

3. Conclusion

In light of the above arguments, appellants request the allowance of claims 19-23.

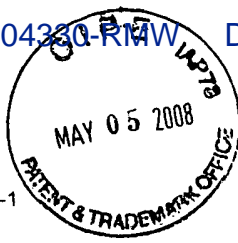
Respectfully submitted,
HOLLAND & HART, LLP

By: _____



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Claims Appendix

19. A method of processing signals between a tester and a plurality of devices under test, the method comprising:

connecting the tester and the plurality of devices under test with at least one multichip module, each of the at least one multichip module having a plurality of micro-electromechanical switches between a first set of connectors to the tester and a second set of connectors to the plurality of devices under test; and

selectively operating each of the plurality of micro-electromechanical switches to process the signals between individual ones of the first set of connectors to the tester and selected multiple ones of the second set of connectors to the plurality of devices under test.

20. A method in accordance with claim 19, further comprising operating the at least one multichip module at a speed of at least 100 MHz.

21. A method in accordance with claim 19, further comprising operating the multichip module at a temperature of at least 125° C.

22. A method in accordance with claim 19, further comprising mounting each of the at least one multichip module directly on a probe card.

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23. A method in accordance with claim 19, further comprising mounting each of the at least one multichip module directly on a probe card, operating the multichip module at a temperature of at least 125° C, and operating the at least one multichip module at a speed of at least 100 MHz.

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Evidence Appendix

None.

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Related Proceedings Appendix

None.

Document code: WFEE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/410,699	04/24/2006	Romi Mayder	10060220-1	4586
63448	7590	07/25/2008		
Gregory W. Osterloth Holland & Hart, LLP P.O. Box 8749 Denver, CO 80201			EXAMINER ISLA RODAS, RICHARD	
			ART UNIT 2829	PAPER NUMBER
			MAIL DATE 07/25/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

11/410,699

Applicant(s)

MAYDER ET AL.

Examiner

RICHARD ISLA RODAS

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments in the Notice of Appeal filed 5/5/2008, with respect to the rejection(s) of claim(s) 19-23 under the US Patent to Legal et al. (#5,736,850) in view of the US Patent to Legett et al. (#6,098,142) have been fully considered and are persuasive. Therefore, the rejection of claims 19-23 as stated in the Final Rejection mailed 9/27/2007, has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the US Patent to Bartlett et al. #5,834,975 and the US Patent to Saia et al. #6,773,962.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 19 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over the US Patent to Legal (5,736,850) in view of the US Patent to Bartlett et al. #5,834,975 (Bartlett hereinafter) and further in view of the US Patent to Saia et al. #6,773,962 (Saia hereinafter).

In terms of claims 19 and 22, legal teaches in Figure 2A, a method of processing signal between a tester (110) and a plurality of devices under test (cells on top of wafer 122), with at least one multichip module (216) mounted directly on a probe

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card (218), the module having a plurality of mechanical switches (see lines 59-61 in column 4) between a first set of connectors (DRIVER/RECEIVERS) to the tester (110) and a second set of connectors (220) to the plurality of devices under test (cells on wafer 122), and selectively operating each of the plurality of mechanical switches to process (receive and transmit) the signals between individual ones of the first set of connector to the tester and selected multiple ones of the second set of connectors to the plurality of devices under test (The relays provide independent conductive paths between the tester and the probes, said relays can be actuated to connect one of the group of drivers to one of the test sites as explained in lines 50-58, column 4). Legal, teaches that the mechanical switches may also be switches that have control inputs (electrical) or a similar structure (see lines 61-64 in column 4). Legal however, does not explicitly state the use of micro electro-mechanical switches in a multichip module. Nevertheless, it has been held that to be entitled weight in method claims, the recited-structure limitations therein (electro-mechanical switch) must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure (in the immediate case, the preferred use of electro-mechanical switches in the multichip module). Ex parte Pfeiffer, 1962 C.D. 408 (1961). Since the method as claimed is not affected by the use of the particular structure, Legal anticipates the method steps.

Nevertheless, the use of micro-electromechanical switches is well known in the art. For example, Bartlett teaches in Figure 1, the use of micro-electromechanical switches (s1, s2, s3... etc) as switching devices for connecting and disconnecting IN

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and PWROUT signals. It would have been obvious to one having ordinary skill in the art at the time the invention was made, to replace the mechanical switches in Legal's device for the micro-electromechanical switches in Bartlett's device, in order to provide switching arrays that are smaller, lighter and consume less power.

Finally, Bartlett doesn't explicitly teach that the micro-electromechanical switches are packaged on multichip modules (MCM). However, multichip module (MCM) packaging of MEMS devices is well known in the art. For example, Saia teaches a method of holding (packaging in) a plurality of MEMS as a multichip module using multichip module techniques (see lines 39-41, col. 1). That is, Saia teaches a method of protecting MEMS by implementing a multichip module that holds a plurality of MEMS. It would have been obvious to one having ordinary skill in the art, to use the teachings of MEMS held by MCM structures, as taught by Saia, to package the micro-electromechanical switches in Bartlett's device inside an MCM structure, in order to protect the fragile micro-electromechanical structures from mechanical and/or chemical attack (as suggested in lines 42-45, col. 1).

4. **Claims 20, 21 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Legal in view of Bartlett in view of Saia and further in view of the US Patent to McCord #6,681,869 and further in view of the US Patent to Akram 6,640,323.

As to claims 20, 21 and 23, Legal in view of Bartlett and McCord substantially teaches all of the claimed steps as discussed above including mounting the multichip module (216) directly on a probe card (218). Legal in view of Bartlett and McCord does

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not explicitly teach however, the step of operating the multichip module at a speed (frequency) of at least 100 MHz. McCord shows that it's well known in the art that to operate a tester (and consequently the module connecting it to the device under test) at and above the rated clock frequency of the device under test (see lines 29-38 in column 10). For instance, when testing a device which working frequency is 533 MHz, is customary to process the signals at frequencies up to 584MHz. It would have been obvious to one of ordinary skill in the art, to operate the multichip module at 100MHz or more when testing devices whose frequency of operation is below such frequency, as taught by McCord, in order to replicate the working conditions of said devices.

Furthermore, McCord is silent as to the preferred temperature of operation of the device. Akram teaches a procedure know as static method of burn-in that consist of applying test signals on devices under test at temperatures of 125 degrees Celsius. Such method comprises the step of applying operating voltages on the devices under test that are much higher than their normal operating voltage, thereby increasing the temperature of the devices under test and removing those devices that fail to withstand the temperature and/or voltage (infant mortality of dies), as explained in lines 21-32 in column 2. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to apply higher than normal operating voltages on the devices under test of Legal's system (by operating the multichip module to send higher than normal test signals to the devices under test) thereby increasing the temperature of operation to up to 125 degrees, as taught by Akram, in order to detect early failure of

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the devices under test (infant mortality of dies) as suggested by Akram in line 10 of column 2.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Document Number Number-Kind Code e.g. 0500004 A1	Date MM-YYYY	Name	Classification
7,091,765	08-2006	Blak et al.	327/199
2008/0091961	04-2008	Cranford et al.	713/300
7,068,220	06-2006	DeNatale et al.	342/375
6,303,885	10-2001	Hidiwa et al.	200/181

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Isla-Rodas whose telephone number is (571) 272-5056. The examiner can normally be reached on Monday through Friday 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ha Nguyen can be reached on (571) 272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Richard Isla-Rodas
July 20, 2008

/Ha T. Nguyen/

Supervisory Patent Examiner, Art Unit 2829

Notice of References Cited	Application/Control No. 11/410,699		Applicant(s)/Patent Under Reexamination MAYDER ET AL.	
	Examiner RICHARD ISLA RODAS		Art Unit 2829	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-7,091,765	08-2006	Bilak et al.	327/199
*	B	US-2008/0091961	04-2008	Cranford et al.	713/300
*	C	US-7,068,220	06-2006	DeNatale et al.	342/375
*	D	US-6,303,885	10-2001	Hichwa et al.	200/181
*	E	US-5,736,850	04-1998	Legal, Dennis Andrew	324/158.1
*	F	US-6,773,962	08-2004	Saia et al.	438/118
*	G	US-6,801,869	10-2004	McCord, Don	702/117
*	H	US-5,834,975	11-1998	Bartlett et al.	330/278
*	I	US-6,640,323	10-2003	Akram, Salman	714/724
	J	US-			
	K	US-			
	L	US-			
	M	US-			


FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
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	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
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	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes 	Application/Control No. 11410699	Applicant(s)/Patent Under Reexamination MAYDER ET AL.
	Examiner RICHARD ISLA RODAS	Art Unit 2829

SEARCHED

Class	Subclass	Date	Examiner
324	754	7/18/2007	RI

SEARCH NOTES

Search Notes	Date	Examiner
EAST Search (text search only) - updated search, see search history print-out	7/18/2008	RI

INTERFERENCE SEARCH

Class	Subclass	Date	Examiner

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	"6681869".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/20 17:50
L2	7	McCord.in. and tester	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/20 17:50
L3	2	"6640323".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/20 17:52
S1	7381	(mem\$1) with chip	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/11 16:17
S2	9	(mem\$1) with chip same tester	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/11 16:17
S3	1771	micro with electromechanical with switch\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/11 16:19
S4	53	S3 and test same chips	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/11 16:20
S5	2	"20070247140"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/11 16:32

S6	14	(mem\$1) with switch\$3 same chip with test\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 10:07
S7	2	"20070247140"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 10:08
S8	0	(mem\$1) with switch\$3 same MCM same chip with test\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 10:17
S9	15	(mem\$1) with switch\$3 same MCM and test\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 10:18
S10	0	probe adj card same MCM same MEMS with switch\$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 10:32
S11	2	probe adj card same MCM same MEMS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 10:32
S12	48	probe adj card same MCM	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 10:32
S13	11	MCM with MEMS with switch\$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 11:24
S14	37	MCM same MEMS with switch\$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 11:27

S15	3	324/754.ccls. and MEMS with switch\$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 11:39
S16	15286	microelectromechanical	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:16
S17	360	microelectromechanical adj switch\$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:16
S18	3	S17 and "324"/\$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:17
S19	3917	\$5electromechanical adj switch\$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:18
S20	3917	(\$5electromechanical or micro adj electromechanical) adj switch\$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:20
S21	3	S20 and test same multichip with module	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:20
S22	3	(\$5electromechanical or micro adj electromechanical) adj switch\$2 and test and multichip	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:21
S23	673	(\$5electromechanical or micro adj electromechanical) adj switch\$2 and test	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:21


S24	1	S22 and "324"/\$.cls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:21
S25	104	S19 and "324"/\$.cls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:22
S26	0	microchip adj module same \$7electromechanical adj switch\$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:30
S27	0	microchip adj module same \$7electromechanical with switch \$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:31
S28	1	microchip with module same \$7electromechanical with switch \$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:31
S29	3	multichip with module same \$7electromechanical with switch \$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:34
S30	47	multichip with module and \$7electromechanical with switch \$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 14:34
S31	414	\$7electromechanical with switch \$2 same test\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 15:28
S32	35	mems with \$7electromechanical with switch\$2 same test\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 15:31

S33	245	mems with \$7electromechanical with switch\$2 same connect	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 15:40
S34	130	mems with \$7electromechanical with switches with connect	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 15:41
S35	0	mems with \$7electromechanical with switches with connect with chip	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 16:31
S36	14	mems with switches with connect with chip	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 16:31
S37	360	mems with switch\$2 with chip	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 16:49
S38	61	mems with switch\$2 with chip and test	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 16:49
S39	2	"5834975".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2008/07/18 17:27
S40	56	("4598252" "4755769" "5256987" "5578976").PN. OR ("5834975").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2008/07/18 17:31
S41	63	multichip adj module and 324/754.cds.	US-PGPUB; USPAT; USOCR	AND	ON	2008/07/18 17:39
S42	76	multichip adj module and probe adj card	US-PGPUB; USPAT; USOCR	AND	ON	2008/07/18 18:20
S43	7	multichip adj module same probe adj card	US-PGPUB; USPAT; USOCR	AND	ON	2008/07/18 18:20
S44	16	multichip adj module same DUT	US-PGPUB; USPAT; USOCR	AND	ON	2008/07/18 18:26

S45	1	"5834975".pn.	US-PGPUB; USPAT; USOCR	AND	ON	2008/07/18 18:40
S46	71	multichip adj module with mems	US-PGPUB; USPAT; USOCR	AND	ON	2008/07/18 18:42
S47	71	multichip adj module with mems	US-PGPUB; USPAT; USOCR	AND	ON	2008/07/18 18:44
S48	12	("4633573" "5161093" "5353498" "5522006" "5527741" "5731047" "5757072" "5833903" "6150719" "6252229" "6499214").PN. OR ("6773962"). URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2008/07/18 18:58

7/20/2008 6:10:14 PM

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<i>Index of Claims</i> 	Application/Control No. 11410699	Applicant(s)/Patent Under Reexamination MAYDER ET AL.
	Examiner RICHARD ISLA RODAS	Art Unit 2829

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant		<input type="checkbox"/> CPA		<input type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47			
CLAIM		DATE							
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